

IN THE CLAIMS

1. (Currently Amended) A broadcasting system comprising:

a broadcasting station for broadcasting ~~[[a]]~~ digital content ~~together~~ with attribute information indicating an attribute thereof; and

a plurality of reception apparatuses having reception means for receiving said digital content and said attribute information broadcast from ~~[[a]]~~ the broadcasting station, a recording medium for recording the received digital contents and the received attribute information, output means for outputting the received digital contents, and selection means for ~~selecting~~ allowing a user to select the digital contents via a filtering process by comparing selection information indicating ~~users's taste~~ user preferences with attribute information assigned to the digital contents, wherein

said user is permitted to activate or deactivate the filtering process at any time;

said attribute information is expressed with an n-dimensional vector A comprising attribute items as elements each indicative of attribute intensities for ~~[[a]]~~ the digital content;

said selection information is expressed with an n-dimensional vector S comprising ~~user's taste~~ user preference items as elements each indicative of ~~taste~~ preference intensities;

item types and orders for said attribute information and said selection information correspond to ~~those for~~ an attribute information's vector A and a selection information's vector S; and

said plurality of reception ~~apparatus's~~ apparatuses include selection means ~~performs~~ for performing an inner product operation between ~~[[an]]~~ the attribute information's vector A

~~attached to a broadcast digital content~~ and ~~[[a]]~~ the selection information's vector S_s and determines whether to select ~~that~~ the digital content based on ~~an~~ the result of the inner product operation ~~result~~.

2. (Currently Amended) ~~[[A]]~~ The broadcasting system according to claim 1, wherein the selection means of each of said plurality of reception apparatus's selection means ~~apparatuses~~ finds a selection value P based on the following equation and selects ~~[[a]]~~ the digital content based on ~~the~~ a size of ~~this~~ the selection value P as follows:

$$A = (a_1, a_2, a_3, \dots, a_n)$$

$$S = (s_1, s_2, s_3, \dots, s_n)$$

$$P = \frac{A \cdot S}{|A| \cdot |S|}$$

where

$$A \cdot S = \sum_{k=1}^n a_k S_k$$

$$|A| = \sqrt{\sum_{k=1}^n a_k^2}$$

$$|S| = \sqrt{\sum_{k=1}^n S_k^2}$$

in which neither A nor S is ~~[[0]]~~ a zero vector.

3. (Currently Amended) ~~[[A]]~~ The broadcasting system according to claim 1, wherein said selection information's vector S is found from a vector A of attribute information attached to a plurality of digital contents selected by ~~[[a]]~~ the user.

4. (Currently Amended) [[A]] The broadcasting system according to claim 3, wherein said selection information's vector S is found according to the following equation:

$$S = \frac{1}{M} \sum_{k=1}^M A_k$$

where M is assumed to be ~~the~~ a number of digital contents selected by [[a]] the user[:,]; and an attribute vector for the K-th digital content selected by [[a]] the user is assumed to be: $A_k = (a_{1k}, a_{2k}, a_{3k}, \dots, a_{nk})_2$

5. (Currently Amended) [[A]] The broadcasting system according to claim 3, wherein said selection information's vector S is found according to the following equation:

$$S = \frac{1}{M} \sum_{k=L-M+1}^L A_k$$

where M is assumed to be ~~the~~ a number of windows for finding a vector S[:,]; L is assumed to be a start point for selecting [[a]] the plurality of digital contents for finding the vector S[:,]; and an attribute vector for the K-th digital content selected by [[a]] the user is assumed to be: $A_k = (a_{1k}, a_{2k}, a_{3k}, \dots, a_{nk})_2$

6. (Currently Amended) [[A]] The broadcasting system according to claim 3, wherein said selection information's vector S is found by averaging vectors A for attribute information attached to [[a]] the plurality of digital contents reproduced by [[a]] the user for a specified time ~~or more~~.

7. (Currently Amended) [[A]] The broadcasting system according to claim 3, wherein said selection information's vector S is found by averaging vectors A for attribute information attached to [[a]] the plurality of digital contents reserved by [[a]] the user.

8. (Currently Amended) [[A]] The broadcasting system according to claim 3, wherein said selection information's vector S is found by averaging vectors A for attribute information attached to [[a]] the plurality of digital contents reproduced by [[a]] the user for a specified time ~~or more~~, averaging vectors A for attribute information attached to [[a]] the plurality of digital contents reserved by [[a]] the user, assigning a weight to each average, and combining ~~these~~ the weights.

9. (Currently Amended) [[A]] The broadcasting system according to claim 1, wherein the selection means of each of said plurality of reception apparatus's selection means apparatuses selects [[a]] the digital content based on a vector S of the selection information corresponding to a plurality of users.

10. (Currently Amended) A reception apparatus comprising:
reception means for receiving ~~said~~ digital content and attribute information broadcast from a broadcasting station;
a recording medium for recording the received digital content and the attribute information;
output means for outputting the received digital content; and

selection means for ~~selecting a~~ allowing a user to select the digital content via a filtering process by comparing selection information indicating ~~user's taste~~ user preferences with attribute information attached to the digital content, wherein

said user is permitted to activate or deactivate the filtering process at any time;

said attribute information is expressed with an n-dimensional vector A comprising attribute items as elements each indicative of attribute intensities for ~~[[a]]~~ the digital content;

said selection information is expressed with an n-dimensional vector S comprising ~~user's taste~~ user preference items as elements each indicative of ~~taste~~ preference intensities;

item types and orders for said attribute information and said selection information correspond to ~~those for~~ an attribute information's vector A and a selection information's vector S; and

said selection means performs an inner product operation between ~~[[an]]~~ the attribute information's vector A ~~attached to a broadcast digital content~~ and ~~[[a]]~~ the selection information's vector S, and determines whether to select ~~that~~ the digital content based on ~~an~~ the result of the inner product operation ~~result~~.

11. (Currently Amended) ~~[[A]]~~ The reception apparatus according to claim 10, wherein said selection means finds a selection value P based on the following equation and selects ~~[[a]]~~ the digital content based on ~~the a size of this~~ the selection value P as follows:

$$A = (a_1, a_2, a_3, \dots, a_n)$$

$$S = (s_1, s_2, s_3, \dots, s_n)$$

$$P = \frac{A \cdot S}{|A| \cdot |S|}$$

where

$$A \cdot S = \sum_{k=1}^n a_k S_k$$

$$|A| = \sqrt{\sum_{k=1}^n a_k^2}$$

$$|S| = \sqrt{\sum_{k=1}^n S_k^2}$$

in which neither A nor S is $[[0]]$ a zero vector.

12. (Currently Amended) $[[A]]$ The reception apparatus according to claim 10, wherein said selection information's vector S is found from a vector A of attribute information attached to a plurality of digital contents selected by $[[a]]$ the user.

13. (Currently Amended) $[[A]]$ The reception apparatus according to claim 12, wherein said selection information's vector S is found according to the following equation:

$$S = \frac{1}{M} \sum_{k=1}^M A_k$$

where M is assumed to be ~~the~~ a number of digital contents selected by $[[a]]$ the user $[[;]]$ and an attribute vector for the K-th digital content selected by $[[a]]$ the user is assumed to be: $A_k = (a_{1k}, a_{2k}, a_{3k}, \dots, a_{nk})$.

14. (Currently Amended) [[A]] The reception apparatus according to claim 12, wherein said selection information's vector S is found according to the following equation:

$$S = \frac{1}{M} \sum_{k=L-M+1}^L A_k$$

where M is assumed to be the a number of windows for finding a vector S[:,], L is assumed to be a start point for selecting [[a]] the plurality of digital contents for finding the vector S[:,], and an attribute vector for the K-th digital content selected by [[a]] the user is assumed to be: $A_k = (a_{1k}, a_{2k}, a_{3k}, \dots, a_{nk})$.

15. (Currently Amended) [[A]] The reception apparatus according to claim 12, wherein said selection information's vector S is found by averaging vectors A for attribute information attached to [[a]] the plurality of digital contents reproduced by [[a]] the user for a specified time ~~or more~~.

16. (Currently Amended) [[A]] The reception apparatus according to claim 12, wherein said selection information's vector S is found by averaging vectors A for attribute information attached to [[a]] the plurality of digital contents reserved by [[a]] the user.

17. (Currently Amended) [[A]] The reception apparatus according to claim 12, wherein said selection information's vector S is found by averaging vectors A for attribute information attached to [[a]] the plurality of digital contents reproduced by [[a]] the user for a specified time ~~or more~~, averaging vectors A for attribute information attached to [[a]] the plurality of digital contents reserved by [[a]] the user, assigning a weight to each average, and combining ~~these~~ the weights.

18. (Currently Amended) [[A]] The reception apparatus according to claim 10, wherein said selection means selects [[a]] the digital content based on a vector S of the selection information corresponding to a plurality of users.